

GOOD ROADS

EXPENSE OF GRAVELING ROAD

Problem of Graveling Highways at Moderate Cost Solved by Commissioner Rheinhardt of Idaho.

Evidently Otto Rheinhardt, commissioner of the Nampa highway district, Canyon county, Idaho, has solved the problem of graveling the highways at moderate cost, writes E. F. Stephens in Denver Field and Farm. Three years ago he decided to gravel the district's share of the boulevard between Nampa and Caldwell. A half mile away, Indian creek runs parallel with this boulevard and there an abundant supply of gravel was procured. Fortunately the very heavy traffic incident to hauling rails and ties for the Interurban electric line track cut through the gravel, mixing the underlying soil with the superimposed gravel in suitable proportions for cementing a firm, smooth roadbed. A percentage of clay smooth or volcanic ash soil mixed with gravel makes a hard, smooth roadbed not likely to absorb the rainfall. The result on the boulevard has been to secure a very serviceable roadbed highly commended by local and United States engineers.

Under the inspiration of this successful roadbed a neighborhood lying



Fine Stretch of Road in West.

to the west, called Orchard avenue, decided to gravel on the following plan: The farmers to donate the use of teams and wagons with dump boards. The Nampa highway district to provide gravel, usually donated by those who have it, pay the shovelers and a man to help dump the loads and also spread and smooth the gravel on the roadbed, using for this purpose a King drag. The freshly gravelled roadbed should be smoothed with a King drag or other implement weekly for two months or until settled and cemented with the underlying soil. Four inches of gravel in the middle of the roadbed with two inches on the sides most readily mixes with the underlying soil in such proportions as to shed rain and form a smooth, solid bed. Heavy traffic cuts through the gravel in wet weather until enough underlying soil has been mixed and cemented with the gravel to shed rain and create a solid roadbed.

A moderate percentage of clay soil mixed with the gravel as applied will pack and cement from the beginning. The clay gravel banks along the reclamation ditches piled by the dredges supply ideal material for graveling our roads. This mixture of clay, sand and gravel packs from the very first and does not need underlying soil cut in by heavy traffic. Coarse gravel, free from clay or soil, will need an admixture of soil from below to secure a hard, smooth roadbed. Orchard avenue has now been gravelled two years. Its success from the start has been such as to attract the attention of other neighborhoods.

STATE AID FOR GOOD ROADS

One Reason Why Food Prices Are High Is Because of Cost of Hauling Over Bad Highways.

Nearly every one of the state legislatures is considering demands for more help for road building, says St. Joseph News-Press. Ten years ago all the states together put up but \$2,000,000 for road building, exclusive of local funds. In 1914 they spent \$43,000,000. But as four-fifths of this was done by six eastern states and two Pacific coast states, the problem is far from solved nationally. Many of our big problems always come back to the cost-of-living question.

Plant Nut Trees.

Some nut or fruit-bearing trees set out on country roads 50 feet apart, would add much of beauty and comfort to the highway. It would be necessary, of course, to have well-rounded roadways to drain off the water, for mud holes and poor roadbeds would not dry out quite so fast as where the sun shines on the roadbed all the time. The better roadbeds would be well worth while.—LeRoy Cady.

Personal Benefit and Profit.

Go to road improvement with the same determination you would to dig ditches or build fences—with the full realization that it is for your own personal benefit and profit; and not only merely a "public duty."

Aid for Permanent Roads.

State and national aid for permanent roads is sure to come, but it is not likely to come to any community that has, by their lack of interest in good roads shown that they are unworthy of it.

Dairy

Crops

THE TIMES' PAGE FOR THE FARMER

Live Stock

Farm Hints

FERTILIZING STRAWBERRIES PROFITABLE



Fertilized With Acid Phosphate.

(By W. H. CHANDLER.)

The strawberry plant, in practice, propagates from runners that form new plants at the nodes. Normally, after the plant sends up flower stems, in the spring, runners do not begin to form to any great extent before the end of the fruiting season. However, by removing the fruit stems early in the season, runners will begin to form earlier. Some growers remove the fruit stems in this way from young plants that have been set in the spring in order to hasten the beginning of runner formation. The results indicate that the practice is a good one.

The fruit is borne on stems that come out of buds from the crown of the strawberry plant. It is the opinion of a great many growers that these buds are formed the season before, just as the buds of peaches, apples, etc., are formed. Experience at the agricultural experiment station of Missouri, indicates that the number of fruit stems sent up from any crown can be influenced by spring treatment of the strawberry planting. Thus where strawberries were fertilized with nitrogen, throwing the plants into vigorous growth, runner formation began earlier, and certainly fewer fruits were borne. Whether this was because of poor fertilization

or because fewer blooms were set, it is not possible to say.

Normally there is one crown to each plant. However, if the runners are kept removed a number of crowns will be formed on each plant; sometimes a large number. Growers in some sections practice removing the runners and causing the formation of a large number of crowns on one plant. This is known as the hill system of culture. This system makes it possible to cultivate the plants both ways, thus reducing the expense of hoeing. In Missouri, however, the plants are grown in what is known as the matted row system; that is, the runners are permitted to form new plants until a row fourteen to twenty inches wide is formed with the plants covering the entire row.

The question of fertilizing strawberries is receiving considerable attention at the present time. The results of several years of careful study and extensive experiments at the Missouri station are herewith given:

Acid phosphate used alone at the rate of from 150 to 440 pounds to the acre has, in five trials out of six, given a profitable increase in the crop. The one soil in which it was not profitably applied was a much richer one than is generally used for strawberries.

other hand, are long, narrow, deep and smooth of body and necessarily thin fleshed. The Yorkshire and Tamworth breeds best illustrate this type. These are of British origin and have been developed on nitrogenous rations mainly composed of grains, grasses and dairy products.

Comparative experiments show that all breeds do about equally well under similar conditions and, for feed consumed, usually make about the same increase in live weight and growth. The bacon hog, however, dresses but from 70 to 75 per cent net of his gross weight. The lard hog, on the other hand, dresses from 85 to 88 per cent. As dressing percentage is the most important factor in determining the value of hogs in the great markets of the central West, it can be seen why the lard type is particularly popular in the corn and grain-belt states.

As the large packers are able to secure much of their supply of bacon from immature and unfinished lard hogs, there is no large and well-established market of the central West for animals of the strictly bacon type, and although conditions are suitable for the production of bacon hogs of high quality, their breeding and feeding should not be undertaken with the idea of marketing them in competition with animals of the lard type. The bacon hog is an excellent source of home-cured pork, and where there is a local or special market demand sufficient to insure a good profit over the cost of production the raising of bacon animals may well be encouraged.

MAKE SUCCESS WITH SWINE

No Farm Animal Improves and Thrives More Readily Than Hogs When Handled Properly.

To succeed with swine the farmer must know what are the market requirements and which is the best type of animal for him to produce and feed. Type in swine is shown by the general conformation in the mature form and finished condition. And



Well Bred and Thrifty.

while many breeds are included in the same type, they may differ widely from each other in such details as color, shape of head or hang of ears.

At present all of the breeds are included in two types—the lard and bacon. Breeds that are short legged, deep, broad and heavy finished, such as the Poland-China, Duroc-Jersey, Berkshire and Chester White, are known as lard hogs. These are largely of American origin and have been developed by selection and continued breeding on a fat-producing ration, made up largely of corn.

Hogs of the bacon type, on the

CHOLERA CAUSED MUCH LOSS

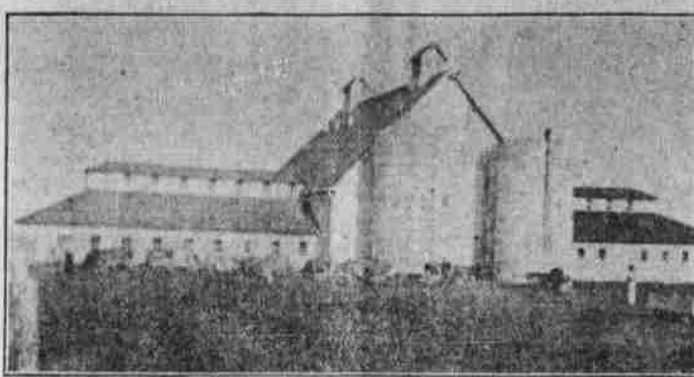
Iowa Was Biggest Loser in 1913, Having Lost Two Million Hogs—Cause of High Prices.

Hog cholera caused a loss of \$73,000,000 in the United States during 1913. The resulting loss of pork is estimated to be over \$100,000,000. Iowa was the heaviest loser, having lost 2,000,000 hogs, or 2-7 of the entire loss for the year. It is estimated that the loss during 1914 was fully as great as during 1913. No doubt this loss of hogs and pork has had its effect in forcing the price of pork upward; thus the consuming public suffers from the loss, but the producers' loss is not reduced in any way. It is, therefore, as much to the advantage of the consuming public as of the producer to have such diseases successfully combated, even at public expense.

Pack Butter Neatly.

Put the butter up in clean, neat, attractive packages.

CONVENIENT DAIRY BARNS AND STABLES



Dairy Barn of Oklahoma Agricultural College.

(By C. L. BRAY.)

The requirements of a good dairy barn are: 1. Suitable and convenient location. 2. Adequate shelter and comfortable quarters for stock. 3. Special storage room for feed. 4. Sanitary construction and good ventilation, such as would be required in any other factory of human food. 5. Convenient arrangements requiring the minimum amount of labor to do the necessary work of feeding and cleaning.

It is advisable to have a separate milking house and also that no other animals, hogs especially, be stabled in or near the dairy barn.

Locate the dairy barns, if possible, on high, well-drained ground, so as to admit of perfect drainage, both on the surface and for such underground drains as may be necessary. Locate where there can be a good supply of lots for cows, calves, herd bulls, etc., convenient to the barn, and where the lots will also be well drained.

In feeding, handling and caring for live stock much time may be wasted by unhandy, awkward arrangements. Haymows and feed rooms should be where the feed can be fed easily. It is not considered a good plan, however, to have a hay loft above a dairy stable unless a dust-proof floor is put in.

More than half of the work of keeping a stable clean and sanitary may be accomplished before a single animal is put in by building floors, mangers, stalls, ceilings and walls so that they can be readily washed, swept or

disinfected. Concrete is not only more permanent, and therefore cheaper for the floors of a stable, but it is much more cleanly. Everyone cannot afford to have stall partitions and stanchion frames made of steel or iron pipe, but if wood must be used, they should be simply and plainly built to afford as little room as possible for dust and dirt to collect. Walls and ceilings should also be made smooth on the inside. They will be much easier to whitewash, cobwebs will not be so likely to collect or so difficult to remove. A stable should be disinfected and whitewashed each year.

Plenty of light and fresh air should be provided by putting in large windows on either side of the barn. If the stable faces east and west, the sun should shine in on every part of the stable during each day. These windows may be hinged at the bottom and swung inward so that plenty of fresh air can get in without letting a draft on the cows. A good plan is to remove a few windows in winter and put canvas across the opening. Enough air goes through without causing any direct draft on the cattle.

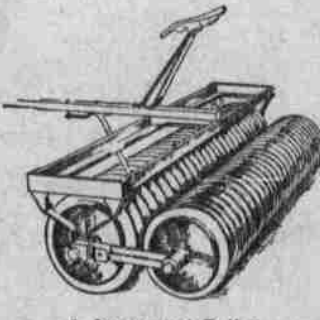
Years ago Prof. I. P. Roberts advocated having a large closed shed adjoining the milking stable into which the cows could be turned at night in winter. With the cows dehorned, the shed well bedded and a water trough put in, the cows had practically all the freedom and comfort they could have outdoors in summertime. The plan, while practicable, has not been generally adopted.

BENEFICIAL ON SANDY SOILS

When Used Properly, the Roller is One of the Most Important of All Tillage Implements.

(By F. S. SEIVERS.)

The capillary water that rises from the subsurface reaches the highest mark in soils that are fine grained and consequently we find that in the dry part of the summer when plants are dependent upon capillarity for their



A Corrugated Roller.

water supply, coarse-grained sands become very dry. If these soils could be pressed together so that the air space between the separate grains would become smaller, the capillary water would rise higher. Here the roller may be used to advantage. It should follow the seeding of small grain and especially clover, to get the soil in closer contact with the

seed as well as to supply moisture from below.

There is another factor that enters and tends to counteract the good effects of rolling. The smooth surface produced will offer less resistance to the wind and consequently the sand will blow and evaporation will go on more rapidly. This may be prevented by following the roller immediately with a light harrow. The roughened surface lessens the blowing of sand, and also forms a dust mulch which retards evaporation as well.

If the corrugated roller or clod crusher is used, the harrow is not needed because this roller itself leaves the surface in a decidedly ridged condition. The effect of compacting sand soils can best be seen by the increase in germination of grain, wherefore a wagon was driven over the field after seeding. If used properly, the roller is one of the most important of all farm tillage implements.

Apples Will Stand Cold.

Apples will stand a good deal of cold, almost to the freezing point, but if suddenly transferred from a cool place to a warm one they will rot quickly.

Weaning Pigs.

Pigs can be weaned without check in growth, but not on corn and water. They must have good, rich protein slop and a moderate amount of corn.

Incubator Top Smooth.

The top of an incubator should be smooth. It is better that the regulator be completely out of the way, under cover at the side of the machine. A smooth top gives you a table on which to keep your instruction book, funnel, etc., and makes a rest for cooling eggs, besides giving you the chance to spread a folded blanket or quilt on top in severe weather to stop the loss of heat.

Hardest Worked Farm Animal.

The hardest worked farm animal is the dairy cow. She should be treated accordingly.

Shelter for the Cows.

The efficiency of the cow is greatly reduced by being exposed to storm or cold winds. Shelter is important.

Increase Value of Cow.

The value of a cow is much increased by being well halter-broken.

Developing Slow Walker.

To work the colt until it is leg-weary will develop a slow walker.

WOMEN FROM 45 to 55 TESTIFY

To the Merit of Lydia E. Pinkham's Vegetable Compound during Change of Life.

Westbrook, Me. — "I was passing through the Change of Life and had



pains in my back and side and was so weak I could hardly do my housework. I have taken Lydia E. Pinkham's Vegetable Compound and it has done me a lot of good. I will recommend your medicine to my friends and give you permission to publish my testimonial." — Mrs. LAWRENCE MARTIN, 12 King St., Westbrook, Maine.

Manston, Wis. — "At the Change of Life I suffered with pains in my back and loins until I could not stand. I also had night-sweats so that the sheets would be wet. I tried other medicine but got no relief. After taking one bottle of Lydia E. Pinkham's Vegetable Compound I began to improve and I continued its use for six months. The pains left me, the night-sweats and hot flashes grew less, and in one year I was a different woman. I know I have to thank you for my continued good health ever since." — Mrs. M. J. BROWNELL, Manston, Wis.

The success of Lydia E. Pinkham's Vegetable Compound, made from roots and herbs, is unparalleled in such cases.

If you want special advice write to Lydia E. Pinkham Medicine Co. (confidential) Lynn, Mass. Your letter will be opened, read and answered by a woman, and held in strict confidence.

At the Races.

"That horse was pulled." — Baltimore American.

Congratulations.

"Congratulate me; I'm married." — "Sure—and congratulate me; I'm single."

If you have lost your job don't be discouraged. Adam also lost his, and see how celebrated he is today as the result.

The girl who wins the love of a truly good man makes a lucky hit and is herself a lucky miss.

Don't waste all your flowers on the dead. Throw a few bouquets to the live ones once in a while.

Feel All Used Up?

Does your back ache constantly? Do you have sharp twinges when stooping or lifting? Do you feel all used up—as if you could just go no further? Kidney weakness brings great discomfort. What with backache, headache, dizziness and urinary disturbances it is no wonder one feels all used up. Doan's Kidney Pills have cured thousands of just such cases. It's the best recommended special kidney remedy.

An Illinois Case

"Every Time I Tell a Story" Mrs. Joseph R. Pittston, 902 Chestnut St., Monticello, Ill., says: "I had kidney complaint for twelve years and during 1909 I had such a severe spell that for four weeks I was almost helpless. The pains in my back were terrible, and I had cold chills and then hot flashes. My hands and feet were cramped badly. After the doctor failed I used Doan's Kidney Pills and they fixed me up all right. I haven't suffered since."

Get Doan's at Any Store, 50c a Box
DOAN'S KIDNEY PILLS
FOSTER-MILBURN CO., BUFFALO, N. Y.

The Wretchedness of Constipation

Can quickly be overcome by CARTER'S LITTLE LIVER PILLS.

Purely vegetable—act surely and gently on the liver. Cure Bilelessness, Headache, Dizziness, Indigestion. They do their duty. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature.

Asent Wood

Paxtine
A Soluble Antiseptic Powder to be dissolved in water as needed For Douches

In the local treatment of woman's ills, such as leucorrhoea and inflammation, hot douches of Paxtine are very efficacious. No woman who has ever used medicated douches will fail to appreciate the clean and healthy condition Paxtine produces and the prompt relief from soreness and discomfort which follows its use. This is because Paxtine possesses superior cleansing, disinfecting and healing properties.

For ten years the Lydia E. Pinkham Medicine Co. has recommended Paxtine in their private correspondence with women, which proves its superiority. Women who have been relieved say it is "worth its weight in gold." At drug stores, 50c. large box or by mail. Sample free. The Paxton Toilet Co., Boston, Mass.